Complete Summary

GUIDELINE TITLE

Skin cancer.

BIBLIOGRAPHIC SOURCE(S)

Finnish Medical Society Duodecim. Skin cancer. In: EBM Guidelines. Evidence-Based Medicine [CD-ROM]. Helsinki, Finland: Duodecim Medical Publications Ltd.; 2005 May 25 [Various].

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Finnish Medical Society Duodecim. Skin cancer. In: EBM Guidelines. Evidence-Based Medicine [CD-ROM]. Helsinki, Finland: Duodecim Medical Publications Ltd.; 2004 Aug 18 [Various].

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Skin cancer, including:

- Melanoma
- Basiloma (basalioma, carcinoma basocellulare, basal cell carcinoma [BCC])
- Epidermoid carcinoma (c. epidermoides, c. spinocellulare, c. squamocellulare, spinalioma)

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Prevention
Treatment

CLINICAL SPECIALTY

Dermatology
Family Practice
Internal Medicine

INTENDED USERS

Health Care Providers
Physicians

GUIDELINE OBJECTIVE(S)

Evidence-Based Medicine Guidelines collect, summarize, and update the core clinical knowledge essential in general practice. The guidelines also describe the scientific evidence underlying the given recommendations.

TARGET POPULATION

Patients with known or suspected skin cancer (melanoma, basiloma, epidermoid carcinoma)

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Evaluation

1. Evaluation of moles (naevi) for clinical features suspicious of malignancy
2. Referral to a specialist for evaluation of large lesions, strong suspicion of melanoma, and lesions on the eyelids or in the vicinity of the nostrils or ear canal
3. Dermatoscopy
4. Biopsy

Treatment/Management

1. Surgical excision
2. Liquid nitrogen cryotherapy
3. Photodynamic treatment
4. Local treatment with imiquimod
5. Referral of confirmed melanoma for further surgical treatment
6. Follow-up examinations, as indicated, depending on type of malignancy. For melanoma, follow-up includes assessment of general condition, investigation of symptoms, assessment of site of excision, palpation of local lymph nodes; further evaluation (chest radiograph, blood count, liver function tests, liver ultrasonography) may be required if clinical examination indicates need.

Prevention

1. Sunscreens, in the prevention of solar keratoses

Note: Measures to prevent skin cancer, including beta carotene and isotretinoin were considered but not recommended.

MAJOR OUTCOMES CONSIDERED

- Specificity and sensitivity of diagnostic measures
- Recurrence rates after treatment
- Incidence of melanoma and other skin cancers or keratoses

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The evidence reviewed was collected from the Cochrane database of systematic reviews and the Database of Abstracts of Reviews of Effectiveness (DARE). In addition, the Cochrane Library and medical journals were searched specifically for original publications.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

A. Strong research-based evidence. Multiple relevant, high-quality scientific studies with homogenic results.
B. Moderate research-based evidence. At least one relevant, high-quality study or multiple adequate studies.
C. Limited research-based evidence. At least one adequate scientific study.
D. No research-based evidence. Expert panel evaluation of other information.

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The levels of evidence [A-D] supporting the recommendations are defined at the end of the "Major Recommendations" field.

Basic Rules

- The most important indication for excision of a naevus is suspicion of malignancy. Other indications include aesthetic considerations or the location of the naevus in an area exposed to friction. If naevi are excised for cosmetic reasons, always estimate the eventual consequences of a scar and the tendency of the patient to develop keloids.
- A general practitioner can excise any naevus using local anaesthesia. Very large lesions and strong suspicion of melanoma should be referred to a specialist.

Naevi, Melanoma

- The incidence of melanoma is increasing. Suspect a melanoma if a naevus starts to grow, change its colour, develop satellites, bleed, or discharge. A

melanoma cannot be ruled out on clinical grounds (see picture 1*), and it may develop on previously intact skin.

1. "Ordinary-looking" naevus
    - The need for excision depends on the history given by the patient concerning changes, and aesthetic considerations or annoying location. Requests for the removal of solitary naevi should generally be granted even if the doctor considers the lesion benign.
    - The naevus is removed totally, but the margin of intact skin can be small.
    - Benign lesions that may concern the patient include long-haired intradermal naevus, dermatofibroma (see pictures 2 and 3*), fibroma molle (see picture 4*), and cherry angioma (see picture 5*).
    - The general practitioner often sees patients who require the removal of a large number of naevi, either one at a time or at the same consultation. Usually a reassuring conversation and the removal of a few large naevi calm the patient, unless the patient suffers from conversion, in which case the same problems occur again later.

2. "Slightly suspect" naevus
    - For example, a naevus that looks benign but that has grown or changed colour (darker) or has bled or discharged according to the patient (Whited & Grichnik, 1998; DARE-988293, 1999) [C]
    - Such a naevus should always be removed, and the excisional margin is determined by the appearance and location of the naevus.
    - Granuloma pyogenicum is a benign growth that usually develops at the site of disrupted skin (see picture 6*).
    - The following lesions may be difficult to differentiate from melanoma:
        - "Blue naevus" (see picture 7*)
        - Lentigo (see picture 8*)
        - Naevus spilus (see picture 9*)
        - Spitz naevus (see picture 10*)

3. Strong suspicion of a melanoma
    - See pictures 11, 12, 13*
    - Refer the patient to a plastic surgeon, a surgeon, or a specialist in otorhinolaryngology or ophthalmology if a naevus has
        - Markedly grown and changed its colour (see picture 14*)
        - Become exceptionally large (see picture 13*)
        - Developed satellites
        - Appeared on the site of a melanoma that has been excised before
    - Make sure that the patient has reserved an appointment and that the naevus was removed.

Treatment and Follow-up of a Melanoma

- In cases of melanoma, the patient should be referred for further surgical treatment, and the referring physician should make sure that the patient is treated without delay.
- A larger excision of the skin and subcutaneous tissue is performed around the tumour. The extent of the excision is determined by the location, thickness

(Breslow classification), and depth of infiltration (Clark classification) of the tumour.
- Very superficial melanomas (Clark I-II, Breslow <1 mm) should be excised with a 1-cm margin of intact tissue (see picture 15*). Deeper melanomas should be removed with a 2- to 5-cm margin. The site of excision is reconstructed with a pedicle flap or free graft. Prophylactic evacuation of lymph nodes is performed in some cases of melanoma.

Follow-up of a Melanoma

- Patients with a melanoma are followed-up every 3 months until 2 years have passed from the diagnosis. Thereafter, follow-up is continued every 6 months for 5 years. The unit responsible for follow-up (hospital or primary care) can be decided on locally. It is important that the same doctor always sees the patient.
- If the patient has numerous naevi or the syndrome of hereditary dysplastic naevi, follow-up of a melanoma should take place in a dermatological unit. High-quality photographs facilitate follow-up. These patients should be followed-up throughout their life.
- At follow-up visits the general condition and symptoms are investigated, and the site of excision and local lymph nodes are palpated. Satellites of melanoma are usually felt as subcutaneous nodules, and they are visible under the skin as dark spots.
- A melanoma first metastasizes into regional lymph nodes, which should be followed-up carefully by palpation. If the clinical examination suggests the spread of a melanoma, a chest x-ray, blood count, liver function tests, and liver ultrasonography should be performed.
- If a melanoma has infiltrated the regional lymph nodes, they are removed surgically. A metastasized melanoma is treated by an oncologist. Cytostatics and interferon have been moderately effective in the treatment of metastasized melanoma.

Basiloma (Basalioma, Carcinoma Basocellulare, Basal Cell Carcinoma [BCC])

- See pictures 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26*
- Basiloma or basal cell carcinoma is the most common malignant skin tumour.
- Basilomas are most commonly located in the face of persons who are elderly, light-skinned, or who have been heavily exposed to sunlight (see pictures 27 and 28*).
- A typical basiloma is a glittering tumour with elevated margins. Often ulceration develops in the centre. A so-called morphoid basiloma is difficult to recognize and its borders are difficult to determine.
- A superficial basiloma usually occurs on the trunk (see picture 29*). Differentiation from psoriasis or eczema may sometimes be difficult. Slow growth lasting many years is typical for the clinical picture.
- Solar ultraviolet B (UVB)-radiation is the most important predisposing factor.

Treatment and Follow-up

- The general practitioner can excise (Thissen, Neumann, & Schouten, 1999; DARE-992074, 2001; "Interventions for basal cell carcinoma of the skin",

2003) [C] a small, typical basiloma if he/she is familiar with the operative techniques in the area. Patients with a suspected basiloma on the eyelids or in the vicinity of the nostrils or ear canal should be referred to a specialist.

- The treatment of choice is surgery. The tumour is excised under local anaesthesia with a 5-mm margin of intact tissue, and reconstruction is performed if necessary by pedicle flap or free graft.
- A superficial basiloma, and some common basilomas, particularly in the elderly, can be treated with liquid nitrogen cryotherapy in a unit familiar with the technique (see picture 30*). New methods for the treatment of basilomas include photodynamic treatment and local treatment with imiquimod.
- A basiloma metastasizes rarely. Because local spread is common, special care should be taken in the treatment and follow-up of basilomas near the eyelids, nostrils, or ear canal.
- Small basilomas in non-risk areas can be excised by the general practitioner who is also responsible for follow-up yearly.
- Consider referring a young patient with basiloma to a dermatologist. Basiloma may be a manifestation of some rare inherited diseases (see picture 31*).

Epidermoid Carcinoma (c. epidermoides, c. spinocellulare, c. squamocellulare, spinalioma)

- Epidermoid carcinoma most commonly occurs on the face and hands. The usual form is an ulcerating prominence or scaling plaque.
- Epidermoid carcinoma may develop directly on previously healthy-looking skin, but more commonly it develops on some precancerous change (solar keratosis, leukoplakia, Bowen's disease).
- Clinically it is often difficult to distinguish from solar keratosis (see picture 32*), (see also, the Finnish Medical Society Duodecim guideline "Solar Keratosis"). Diagnosis must be confirmed by biopsy.
- An epidermoid carcinoma should be treated by surgical excision. In the face, the margin must be at least 5 mm; in other parts of the body, preferably more.
- Keratoacanthoma is a rapidly growing benign tumor (see picture 33*).
- Bowen's disease is a superficial, "incipient" (in situ) carcinoma (see picture 34*). It can be removed either surgically or by liquid nitrogen cryotherapy. The operation is usually performed by a surgeon, plastic surgeon, otologist, ophthalmologist, or dermatologist specialized in cryotherapy. The treating unit estimates the risk of relapse and determines the need for follow-up.

Lip Carcinoma

- Lip carcinoma (epidermoid carcinoma of the lip) is usually situated in the lower lip (see picture 35*). It presents first as an erosion or ulceration that can be preceded by leukoplakia.
- A lip carcinoma is treated surgically by excising the lip at the site of the tumour with a margin and by performing reconstruction.
- A lip carcinoma easily metastasizes in the lymph nodes under the skin, which should be palpated at follow-up examinations.

Prevention of Skin Cancer

There is little evidence of interventions to prevent skin cancer. Sunscreens may be effective in the prevention of solar keratoses ("Prevention of skin cancer," 1995; DARE-950349, 1999) [C]

Related Evidence

Dermatoscopy may have a potential to improve the diagnostics of malignant melanoma, but this has to be verified with higher quality studies in primary care (Mayer, 1997; DARE- 978307, 1999) [D].

*Note: All pictures identified in this summary can be found in the original guideline document.

Definitions:

Levels of Evidence

A. Strong research-based evidence. Multiple relevant, high-quality scientific studies with homogeneous results.
B. Moderate research-based evidence. At least one relevant, high-quality study or multiple adequate studies.
C. Limited research-based evidence. At least one adequate scientific study.
D. No research-based evidence. Expert panel evaluation of other information.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

Concise summaries of scientific evidence attached to the individual guidelines are the unique feature of the Evidence-Based Medicine Guidelines. The evidence summaries allow the clinician to judge how well-founded the treatment recommendations are. The type of supporting evidence is identified and graded for select recommendations (see the "Major Recommendations" field).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Effective diagnosis and treatment of skin cancer

POTENTIAL HARMS

Excision of naevi can result in scarring and the tendency of the patient to develop keloids.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2001 Apr 30 (revised 2005 May 25)

GUIDELINE DEVELOPER(S)

Finnish Medical Society Duodecim - Professional Association

SOURCE(S) OF FUNDING

Finnish Medical Society Duodecim

GUIDELINE COMMITTEE

Editorial Team of EBM Guidelines

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Primary Author: Heli Majamaa

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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GUIDELINE AVAILABILITY

This guideline is included in a CD-ROM titled "EBM Guidelines. Evidence-Based Medicine" available from Duodecim Medical Publications, Ltd, PO Box 713, 00101 Helsinki, Finland; e-mail: info@ebm-guidelines.com; Web site: www.ebm-guidelines.com.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on December 17, 2002. The information was verified by the guideline developer as of February 7, 2003. This summary was updated on December 29, 2003, on October 4, 2004, on February 18, 2005, and most recently on November 14, 2005.

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